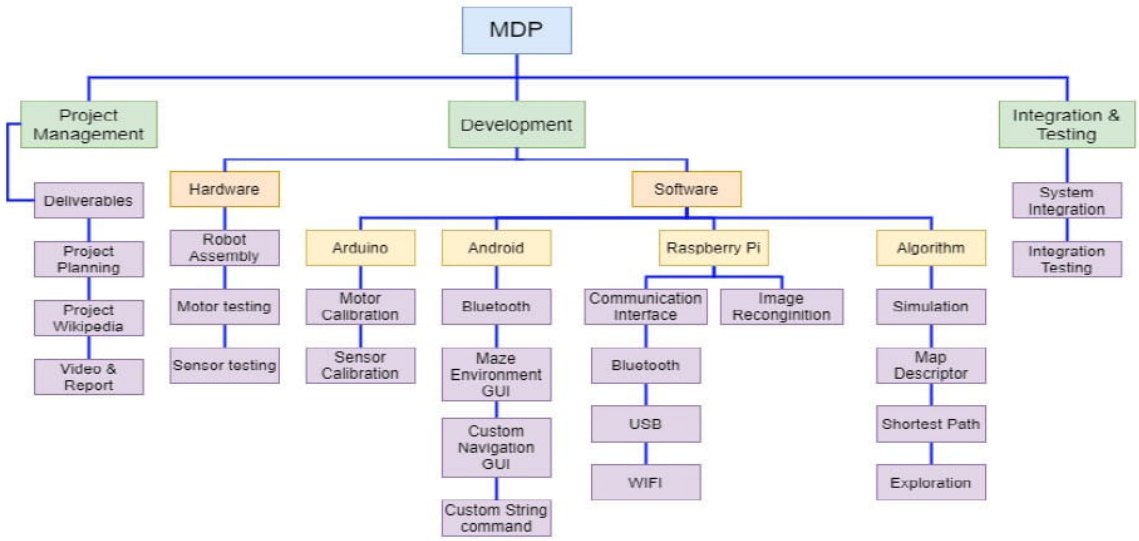
Planning and Implementation

Planning



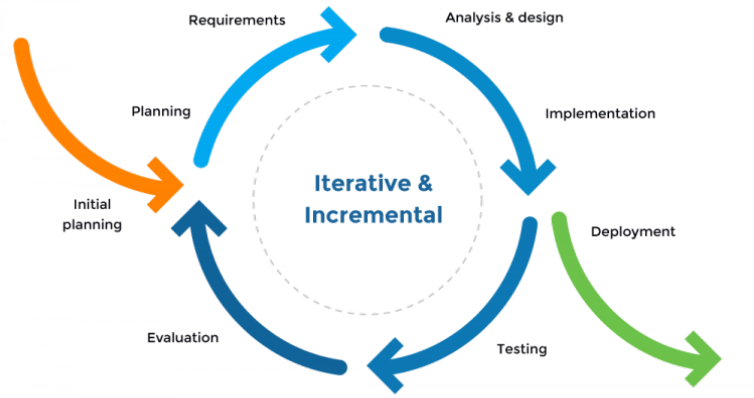
As an initial step, a detailed **Work Breakdown Structure** (WBS) was created, with the following objectives:

1. Project Manager (PM) Assignment to comprehensively oversee project progress
2. Identification and Definition of Development Tasks in all subsystems
3. Division of team into 4 sub-teams (Algorithm, Android, RPi, Arduino)

After establishing Work Breakdown Structure and briefing all team members about their tasks, a precise timeline was created, in the form of a **Gantt Chart**. This aimed to convey the task flow, dependencies and deadlines in an organized & concise manner.

Implementation

We adopted the **Iterative and Incremental Development Model** as follows:



We would iteratively develop different sub-systems, conduct proper evaluation and testing for each development, brief everyone about the same, and only then proceed with further developing the components. This methodology was an ideal choice as it would help **find bugs much earlier in the project life-cycle**, thereby reducing time spent in debugging in the future. The other aspects involved were:

1. Initial 2 days of every week went into researching different methods and tools of implementation since many aspects of the project were new. This time would also include allowing members from different sub-teams to **advise and exchange any prior knowledge**, to speed up the development process.
2. Final team meeting at the end of every week, where team members would state their progress over the week and what they plan to achieve in the following week. We would also analyze what went wrong in the implementation process (eg. took too much time in research) and how it could be avoided in future weeks.